

24. An apparatus in accordance with claim 22, wherein said first adaptation algorithm is a Least Mean Squares Algorithm.

25. An apparatus in accordance with claim 1, wherein said hard decision samples are stored in said decision feedback equalizer filter in said second mode and used to adapt the parameters of said decision feedback equalizer filter using a second adaptation algorithm.

26. An apparatus in accordance with claim 25, wherein said second adaptation algorithm is a Constant Modulus Algorithm.

27. An apparatus in accordance with claim 25, wherein said second adaptation algorithm is a Least Mean Squares Algorithm.

28. An apparatus in accordance with claim 21, wherein,

said soft decision samples are stored in said decision feedback equalizer filter in said first mode and used to adapt the parameters of said decision feedback equalizer filter using a first adaptation algorithm;

said hard decision samples are stored in said decision feedback equalizer filter in said second mode and used to adapt the parameters of said decision feedback equalizer filter using a second adaptation algorithm; and

said first adaptation algorithm is a Constant Modulus Algorithm, and said second adaptation algorithm is a Least Mean Squares Algorithm.

29. A method in accordance with claim 1, wherein said soft decision samples are stored in said decision feedback equalizer filter in said first mode and used to adapt the parameters of said decision feedback equalizer filter using a first adaptation algorithm.

30. A method in accordance with claim 29, wherein said first adaptation algorithm is a Constant Modulus Algorithm.

31. A method in accordance with claim 29, wherein said first adaptation algorithm is a Least Mean Squares Algorithm.

32. A method in accordance with claim 1, wherein said hard decision samples are stored in said decision feedback equalizer filter in said second mode and used to adapt the parameters of said decision feedback equalizer filter using a second adaptation algorithm.

33. A method in accordance with claim 32, wherein said second adaptation algorithm is a Constant Modulus Algorithm.

34. A method in accordance with claim 32, wherein said second adaptation algorithm is a Least Mean Squares Algorithm.